Bisphosphonates combined with TNF inhibitor (Adalimumab) in the treatment of tibial osteomyelitis in children

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A 15-year-old girl had intermittent pain in her left leg since October 2020. The imaging examination suggested that tibial tumors were not excluded. Bone biopsy showed chronic osteomyelitis. Another lesion resection was performed. The postoperative pain was not relieved. The patient came to our hospital for treatment. The X-ray, three-dimensional reconstruction CT and MRI of the left lower leg all showed obvious bone damage and bone thickening. (Figure.1 A,B and C). Therefore, we consider aseptic osteomyelitis, which belongs to the category of SAPHO in children, and that can have no skin manifestations. In this case, the diagnosis is mainly based on the typical radiological manifestations of the patient [1]. Bisphosphonates were given for 3 months. The pain of the patient's left leg was significantly less than before, and there was still swelling of the left lower limb and limited movement. After treatment with TNF inhibitor (adalimumab), the swelling of the left leg subsided significantly. The written consent of the patient has been obtained with regard to the use of information such as the patient's clinical disease for education or scientific research. This case is a rare manifestation of tibial involvement of SAPHO. Bisphosphonate sequential TNF inhibitor can be used to improve the condition of children.

Keywords: SAPHO, tibial osteomyelitis, children

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Figure 1: The X-ray, three-dimensional reconstruction CT and MRI of the left lower leg. (A) The frontal and lateral X-ray film of the left leg shows that the bone mineral density in the lower segment of the left tibia is uneven, and the bone cortex is rough and irregular. (B) Three dimensional reconstruction CT of the left leg showed that the bone cortex of the lower segment of the left tibia was not smooth, and bone destruction, bone thickening and sclerosis were seen locally. (C) MRI of the left leg showed that the local bone cortex of the lower segment of the left tibia was not smooth, local bone defects and destruction were visible, and patchy slightly long T1 and long T2 signals were visible.

References